

18<sup>th</sup> December 2015

Plan Melbourne Refresh  
Department of Environment, Land, Water and Planning  
1 Spring Street  
GPO Box 2392  
Melbourne VIC 3001



Dear Sir/Madam,

**Re: Place, Health, and Liveability Research Program submission in response to the *Plan Melbourne Refresh*.**

Thank you for the opportunity to make a submission regarding the *Plan Melbourne Refresh* Discussion Paper 2015.

We are pleased to enclose feedback and recommendations for consideration from the Place, Health and Liveability Research Program at the McCaughey VicHealth Community Wellbeing Unit, Melbourne School of Population and Global Health, the University of Melbourne.

The Place, Health and Liveability Research Program, established jointly with the University of Melbourne's Faculty of Architecture, Building and Planning, studies neighbourhoods to understand the relationship between built and socio-cultural environments and health. Healthy and liveable communities provide the basis for social equity, harmony, economic resilience and environmental and social sustainability. Our research aims to inform policies and practices to create healthy, liveable communities and our submission reflects an evidence-based approach to achieving this goal. In partnership with the Victorian Department of Health and Human Services, our team has developed a suite of liveability indicators validated against health and wellbeing outcomes. These will be disseminated through Community Indicators Victoria, which provides data to the community and local government. We would be delighted to make these available to the government as metrics that can be used to measure the impact of the current and future versions of Plan Melbourne.

For all inquiries related to this submission please contact:



Place, Health and Liveability Research Program  
McCaughey VicHealth Community Wellbeing Unit  
Melbourne School of Population and Global Health

Thank you for providing the opportunity to comment on the *Plan Melbourne Refresh* Discussion Paper 2015 (the Discussion Paper). We support many of the options and recommendations set out in the Discussion Paper and are pleased that the bipartisan support for Plan Melbourne 2014 has extended into the Discussion Paper for Plan Melbourne 2016. The planning of cities and infrastructure development is an on-going and long-term process and we congratulate the Government on its efforts to plan for a healthy and liveable future for Melbourne. Based on the Discussion Paper, this submission provides suggestions and recommendations that we believe should be incorporated into Plan Melbourne 2016.

### Strengths of the Discussion Paper

#### **We support:**

- The creation of a **permanent urban growth boundary** to prevent further low-rise development extending beyond urban growth boundary areas.
- **Walkable, pedestrian- and cycling-friendly 20-minute neighbourhoods.**
- The concept of a **polycentric city** with local **access to public transport and services.**
- **Increasing residential density to 35 houses per hectare** and provide **housing choices in strategic locations close to employment, public transport and services.**
- The establishment of greater **housing diversity** and the **70/30 housing target** to encourage housing development and density in established suburbs and curb growth in outer areas.
- The inclusion of the updated **Principal Public Transport Network (PPTN).**
- The **linking of tram and train timetables** and the provision of **real time information** to better meet patronage and demand of these services.
- The **10 year rolling implementation plan.**
- The proposed collaboration **with local government (and other partners).**
- The proposed changes to the **delivery of social infrastructure focusing on the needs of established and urban growth area communities.**

**In detail, we support the following options from the Plan Melbourne Refresh Discussion Paper 2015 and advocate that the following Ministerial Advisory Committee recommendations be incorporated or addressed in Plan Melbourne 2016:**

<b>Walkable, pedestrian- and cycling-friendly 20-minute neighborhoods:</b>
<ul style="list-style-type: none"> <li>• Option 35: Incorporate references to Active Transport Victoria, the Updated Victorian Cycling Strategy and linkages to land use outcomes in Plan Melbourne 2016.</li> <li>• MAC Recommendation 33: Insert a new initiative and actions [to] Make neighbourhoods pedestrian and cycling friendly.</li> </ul>
<b>Polycentric city with access to public transport and services:</b>
<ul style="list-style-type: none"> <li>• Option 10: Better define the concepts of the polycentric city and 20-minute neighbourhoods - particularly the ability to meet daily (non-work) needs locally, primarily within a 20-minute walk—and include the polycentric city as a key concept.</li> <li>• MAC Recommendation 8: Relating to Plan Melbourne 2014 Initiative 1.5.3 include a new action: Prepare a new policy with a practice note for New Activity Centres. The practice note should specify the following requirements at minimum: Contribute to the delivery of a polycentric network of 20–minute neighbourhoods.</li> <li>• MAC Recommendation 11: Embed the Central City, connecting transport corridors and the city of 20–minute neighbourhoods as the key spatial foundations for Plan Melbourne 2016, and include the expanded Central City, NEICs and major designated transit corridors on a map.</li> <li>• MAC Recommendation 33: Develop a transport hierarchy that supports the delivery of 20–minute neighbourhoods with pedestrians prioritized in the design of roads and streets, followed by cyclists, public transport, private vehicles and road freight.</li> </ul>
<b>Permanent urban growth boundary:</b>
<ul style="list-style-type: none"> <li>• Option 7: Lock down the existing urban growth boundary and modify the action to reflect this.</li> </ul>
<b>Increasing residential density to 35 houses per hectare and provide housing choices in strategic locations close to employment, public transport and services.</b>
<ul style="list-style-type: none"> <li>• Option 36: Increase established area housing supply by one or more of: <ul style="list-style-type: none"> <li>○ Option 36A: Establishing a 70/30 target where established areas provide 70 per cent of Melbourne’s new housing supply and greenfield growth areas provide 30 per cent.</li> <li>○ Option 36C: Focus metropolitan planning on unlocking housing supply in established areas, particularly within areas specifically targeted for growth and intensification.</li> </ul> </li> <li>• MAC Recommendation 17: Insert new initiatives and actions under Direction 2 as follows: <ul style="list-style-type: none"> <li>○ Initiative 2.1.2: Establish housing targets for 2025 and 2050</li> <li>○ Initiative 2.1.2-1: Amend the State Planning Policy Framework to include the following housing targets for the Melbourne Metropolitan Region: By 2050 at least 70 per cent of all new housing approved after 2015 will be accommodated within the established urban areas of Melbourne and the remaining 30 per cent in the urban growth areas i.e., a 70/30 target.</li> </ul> </li> <li>• MAC Recommendation 32: Insert the following Initiatives and actions under Direction 4.1: <ul style="list-style-type: none"> <li>○ Initiative 3.1.1: Create mixed use neighbourhoods at varying densities</li> <li>○ Use the Mixed Use Zone to enable greater mix of uses at varying densities in appropriate locations.</li> <li>○ Initiative 3.1.4: Measure and monitor the liveability of our neighbourhoods in partnership with local governments, publish an interactive liveability index and map for Melbourne, which draws on local knowledge and is updated annually.</li> <li>○ <b>Our team has developed a suite of liveability indicators that could assist in this regard see: <a href="http://www.communityindicators.net.au/files/docs/How%20liveable%20is%20Melb%202015_Final.pdf">http://www.communityindicators.net.au/files/docs/How%20liveable%20is%20Melb%202015_Final.pdf</a></b></li> </ul> </li> <li>• <b>Research shows that densities of at least 35 dwellings/hectare is required to encourage public transport and in neighbourhoods with densities at this level, residents are almost 5 times more likely to walk locally.</b></li> </ul>

<p><b>Principle Public Transport Network (PPTN) linking activity centers; Linkage of tram and train timetables meeting transport demand:</b></p> <ul style="list-style-type: none"> <li>• Option 34: Include the Principal Public Transport Network (PPTN) in Plan Melbourne 2016.</li> <li>• MAC Recommendation 41: Retain Plan Melbourne 2014 action 3.1.4-1 but replace actions 3.1.4-2 to 3.1.4-5 with the following: <ul style="list-style-type: none"> <li>○ 3.1.4-1: Plan services to better meet patronage demand and ensure new timetables better connect with trams and trains, as well as improve real-time passenger information and stops on a number of key inner-city routes.</li> <li>○ 3.1.4-2: Pilot new intelligent transport systems</li> </ul> </li> </ul>
<p><b>10 year rolling implementation plan:</b></p> <ul style="list-style-type: none"> <li>• Option 1: Revise Plan Melbourne 2014 to articulate an enduring strategy with a long-term focus supported by a ‘rolling’ implementation plan and updated State Planning Policy Framework.</li> <li>• Option 2: Align Plan Melbourne 2016 and the implementation plan with current government strategies, priorities and policy reviews.</li> </ul>
<p><b>Collaboration with local government (and other partners) in delivering Plan Melbourne; Focus on delivery of social infrastructure in urban growth area communities:</b></p> <ul style="list-style-type: none"> <li>• Option 17: Recognize and reinforce the importance of partnership with local government in sub-regional planning and the implementation of Plan Melbourne 2016.</li> <li>• MAC Recommendation 85: Establish a working group with local government to identify constraints to, and opportunities for, local government playing a larger role in funding infrastructure and services that will be needed by their communities in the delivery of Plan Melbourne 2016.</li> <li>• MAC Recommendation 27: Insert a new Direction, new initiative and actions as follows: <ul style="list-style-type: none"> <li>○ Direction 2.6: The State Government prepare a Housing Strategy and Housing Plan for Metropolitan Melbourne.</li> <li>○ Initiative 2.6.1: The State Government work with all levels of government (Federal and Local government) to deliver more housing choice and housing affordability within all regions of Victoria and, in so doing, explore a range of available options outside the planning system.</li> </ul> </li> <li>• MAC Recommendation 38: Reword Initiative 4.4.1 and its accompanying actions as follows: <ul style="list-style-type: none"> <li>○ Co-ordinate a whole-of-government integrated approach to the delivery of social infrastructure. The MPA, in consultation with relevant government agencies and local government, to:</li> <li>○ Provide advice on how government social infrastructure proposals can align with land use and transport objectives</li> <li>○ Identify social infrastructure priorities both at the subregional and municipal levels and the timing of delivery with a specific focus on the needs of the urban growth area communities</li> <li>○ Develop a methodology for funding the delivery of social infrastructure in a timely manner in both the urban growth areas and established urban areas undergoing significant change.</li> <li>○ Explore value capture as a mechanism through which to fund infrastructure in new or regeneration areas.</li> <li>○ Explore more creative approaches to the design of community spaces and buildings to make them more adaptable to changing needs as our neighbourhoods age and evolve, and integrate these approaches into social infrastructure.</li> </ul> </li> <li>• MAC Recommendation 85: Establish a working group with local government to identify constraints to, and opportunities for, local government playing a larger role in funding infrastructure and services that will be needed by their communities in the delivery of Plan Melbourne 2016.</li> </ul>

**The University of Melbourne's Place, Health and Liveability Research Program recommendations for Plan Melbourne 2016 are described below and are summarised in Table 1 (see page 13).**

The following improvements could be incorporated:

1. Use an **Indicator Framework** to **evaluate and monitor progress** on key areas across time.
2. Highlight how the key areas of Plan Melbourne 2016 can impact **health and liveability**.
3. Incorporate **Active Transport infrastructure** such as, pedestrian ways, cycle routes and separated lanes, bus lanes and tram ways into new Precinct Structure Plans and retrofit such infrastructure in established areas by **prioritizing Active Transport** within 5km of train stations and activity centres.
4. Clearly articulate how green wedge and peri-urban areas will be protected and safeguarded and **protect the urban growth boundary** by rezoning land uses adjacent to the boundary.
5. Maintain mechanisms to **protect separation, buffer and interface distances** for existing facilities and uses **which create noise and air quality** issues.
6. **Link and co-ordinate with partner organizations** across all tiers of government
7. Recognise and **clearly identify changes** to the *Planning and Environment Act 1987* that would **support the health and liveability** directions of Plan Melbourne 2016.

**1. Use an Indicator Framework to evaluate and monitor progress on key areas.**

We congratulate the Government in using indicators as described in the chapter on Implementation and towards measuring the liveability of neighborhoods:

*Option 62: Rationalise and update indicators, including addressing gaps relating to environment and climate change.*

*Recommendation 89: Develop performance indicators which provide clear, comprehensive and timely information, and are firmly linked to each of the chapters in the plan.*

*Recommendation 32:*

*Initiative 3.1.4: Measure and monitor the liveability of our neighbourhoods*

- *In partnership with local governments, publish an interactive liveability index and map for Melbourne, which draws on local knowledge and is updated annually.*

In addition to the above options, we recommend the use of an evidence-based **Indicator Framework to organize measures, monitor progress, and to inform and produce quantifiable targets for the key action areas** in current and future versions of Plan Melbourne (Badland, Whitzman et al. 2014).

Indicator Frameworks are used to measure the progress of societies beyond that of traditional economic indicators (OECD 2005; Stiglitz, Sen et al. 2009). They are used to monitor areas that are performing well, and highlight those that need further attention. Indicator Frameworks and measures **improve evidence-based**

**decision making**, and support legislative requirements under the Victorian Public Health and Wellbeing Act 2008 for **Municipal Public Health and Wellbeing Plans (MPHWP)** to include evidence-based strategies for improving health and wellbeing in local communities.

We advocate that the Government draws upon the expertise of our research team at the **McCaughey VicHealth Community Wellbeing Unit** who are experts in indicator development and liveability research and lead the NHMRC [Centre of Research Excellence in Healthy Liveable Communities](#) at the University of Melbourne.

In particular, **we encourage the use of our definition of liveability (see point (2) below) and the comprehensive Indicator Framework through Community Indicators Victoria (CIV) housed by the McCaughey Unit**, which has been in operation since 2007 [www.communityindicators.net.au](http://www.communityindicators.net.au). CIV is the premier Indicator Framework in Australia including social, economic, environmental, cultural and democratic measures of community wellbeing from a range of data sources. CIV uses indicators and measures across Victoria for the benefit of government and community groups seeking to use **evidence in planning and program development**. CIV is the 8<sup>th</sup> most common source of data used by local governments in their municipal public health planning (Browne, Davern et al. 2015) with many of the **indicators within CIV linking directly to planning outcomes such as Walkability for Transport, Access to the Principle Bike Network, Access to Public Transport, Access to Services for Older People, Access to Areas of Public Open Space, Access to Gaming and Alcohol Outlets and Access to Services**. These indicators have been developed and tested by CIV and the Place Health and Liveability Research Program and are based on best practice evidence. Rationales are also provided for each indicator to help users understand the influence and application of the indicators on planning and liveability. Liveability indicators developed through our research program are made freely available to all members of the community through [CIV](#).

## **2. Highlight how the key areas of Plan Melbourne can impact health and liveability.**

**We have defined liveable communities are defined as:**

*'...safe, attractive, socially cohesive and inclusive, and environmentally sustainable, with affordable and diverse housing linked via public transport, walking, and cycling to employment, education, public open space, local shops, health and community services, and leisure and cultural opportunities.'* (Lowe, Whitzman et al. 2013)

**This definition of a liveable community has been adopted in the Victorian Public Health and Wellbeing Plan 2015-2019 and will be used by local governments in their municipal public health planning. We recommend it be incorporated in Plan Melbourne 2016 as the basis of consistent and integrated city and health planning.**

**Based on this definition, health and liveability could be recognized in Plan Melbourne 2016 as the link that unifies the 9 strategic principles outlined in Plan Melbourne 2014 with explicit references to health, active**

**living and liveability re-emphasized.** The origin of city planning was based on protecting health and wellbeing and there is growing evidence that health and planning are inextricably linked. A resilient and healthy city is determined by the planning process and the links between health, active lifestyles, liveability and planning should be upheld throughout Plan Melbourne 2016.

**Key factors such as employment, housing, public transport and access to services and recreational facilities heavily influence liveability and are the underlying conditions that support health.** For example, employment provides the means for housing and a stable life and has been shown to be protective of health (Badland H, Davern M et al. 2015), whilst a poor quality and an unstable home environment are associated with poor health outcomes (Howden-Chapman 2002; Krieger and Higgins 2002). Furthermore, affordable housing that is often provided in low density developments in greenfield areas, comes with hidden costs of travel due to a lack of local services forcing residents to rely on motor vehicles to access them elsewhere (Badland, Whitzman et al. 2014). The trade-off of affordable diverse housing in outer growth areas provides a false economy and pushes up the overall cost of living when the costs of transport are factored in (Badland, Roberts et al. 2015). This highlights the importance of increasing density to provide the population base to **support public transport and fixed infrastructure and essential local services across the entire city** and especially in growth areas that have traditionally been low density with stand-alone dwellings. Importantly, increased density creates the demand for services locally, including public transport, retail, services, local jobs and schools. Higher density outer urban areas will in part facilitate the delivery of the 20 minute neighborhood and will provide the population base for a multi-modal transport system to support public and active transport infrastructure investment. **We recommend a minimum of 22 dwellings per hectare overall, and at least 35 dwellings per hectare to provide the population base to provide the demand for shops, services and public transport (Giles-Corti, Ryan et al. 2012).**

Providing diverse housing to accommodate households of different structures is another one way of increasing density and housing diversity in these areas. However **discussion on minimum apartments sizes is required in developing greater diversity via apartment living.** Melbourne now has some of the smallest apartments in the world, which are not conducive to long-term living, aging in place, and may increase social isolation and reduce community cohesion. **Minimum apartment size regulation, and high quality construction is required to ensure that apartments are: liveable for people of different life stages; and, contribute to a good housing legacy that enables long term living and community development.**

In delivering greater housing diversity there is a requirement to provide housing for new humanitarian arrivals, who currently rely on the private housing market due to high pressure on public housing provision. Many new arrivals have families and the diversity and provision of social housing currently available may not be adequate to support their needs. **We recommend that a percentage of new housing developments be allocated to social housing and that social housing contain adequate housing diversity in combination with 2-3 bedroom houses, apartments and units appropriate for families.** Furthermore, these dwellings should be located proximally to public transport infrastructures and health and social services likely required by this group. We agree that other incentives and mechanisms for funding social housing could be investigated to allow for more social housing in well-resourced areas and we **support recommendation 25 in addressing these issues.**

**Designing new areas to accommodate public and active transport modes is integral** to the development of walkable and cycle friendly neighbourhoods. This will become increasingly important as the city moves towards a population of 7.7 million. Growth corridors in Whittlesea including Mernda, and Woollert already have inadequate street-grids and transport provision, leading to high levels of congestion from private motor vehicles on the major arterial roads, such as Plenty Road, Cooper Street and High Street. Early provision of **multi-modal transport options will influence health and will increase the transport efficiency** of the city by shifting people away from private motor vehicles, which are associated with sedentary behavior. Such a strategy will also reduce congestion on transport routes. Multimodal active transport planning should also be directly implicated in the Updated Victorian Cycling Strategy currently being developed by Active Transport Victoria.

Whilst Plan Melbourne 2014 focuses on 9 principle strategies with separate actions, there are many synergies between them and **we recommend that Plan Melbourne 2016 cross-reference between chapters where synergies exist to make it clear that each chapter works in conjunction with other chapters and recognizes the complexity of planning cities.**

In recognising the importance of liveability and the factors associated with it, **we suggest that Recommendation 28 be modified so the Chapter heading is ‘Healthy, liveable and inclusive neighbourhoods.’ We recommend an explanation of the importance of inclusive neighborhoods be included in Plan Melbourne 2016 to highlight how community cohesion counteracts issues of racial tension and terrorism in developing ‘Resilient Cities’ (Department of Premier and Cabinet 2015).**

**3. *Incorporate Active Transport infrastructure such as, pedestrian ways, cycle lanes, bus lanes and tram ways into new Precinct Structure Plans and retrofit such infrastructure to existing areas by prioritizing Active Transport.***

Plan Melbourne 2014 and the Discussion Paper both promote the use of pedestrian ways and cycle lanes for Active Transport, and in these documents it is clear that additional public and active transport corridors and pedestrian networks are being identified by the newly formed Active Transport Victoria.

However, **clarification on how infrastructure supporting the pedestrian and cycle networks will be delivered and realised is required.** To be effective, **Precinct Structure Plans should be designed with pedestrian ways, cycle lanes, and public transport routes explicitly incorporated to ensure that the street design has the capacity to handle a multi-modal active transport system over time, and is flexible to changes in population, and housing density and diversity, which occur with the housing renewal cycle.**

**Streets need to be well connected with walking and cycling infrastructure to ensure they are walkable for pedestrians and cyclable for cyclists.** Areas that are ‘highly walkable’ have better street connectivity, more destinations, and higher density with ‘Walkability’ determined by the combination of these factors. **The Walkability for Transport Indicator developed by the Place, Health and Liveability team enables walkability to be measured across Melbourne (Giles-Corti, Mavoa et al. 2014).** Along with the **Access to the Principle Bike Network Indicator for Melbourne**, these tools could be used in planning growth areas and identifying



**areas for retrofitting to** ensure that adequate density, street connectivity, and land use mix exist to facilitate walking and cycling. **These indicators are available from [CIV](#).**

Following the report on ‘Delivering Sustainable Urban Mobility’ (Armstrong, Davison et al. 2015), **we recommend that connected cycle paths be implemented within 5km of all train stations and activity centers in Melbourne.** This would connect almost all residents of Melbourne to Active Transport modes.

Walkability characterizes some elements of good design. Based on our research undertaken in Western Australia in the evaluation of the Liveable Neighbourhoods, residents are 2.5 times more likely to walk, if the movement network is well designed (i.e., connected street networks, sidewalks and cyclepaths) (Hooper, Giles-Corti et al. 2014). **Good design is best implemented in new areas where it is more cost-effective than retrofitting. However, in established areas where space is at a premium, it may be optimal to separate cycle ways using specific streets as part of the Principle Bike Network (as already detailed in Initiative 3.1.5).**

If Melbourne is to increase to 7.7 million residents by 2051, **Active Transport modes must be prioritized. We recommend that street grids follow a road hierarchy that promotes walking, cycling, public transport, freight transport and cars.** Pedestrian infrastructure, cycle lanes, buses, trams and trains need to be prioritised. This can be operationalized through provision of dedicated cycle lanes, bus lanes and tramways and by giving priority for active transport modes at traffic signals. Long term planning may involve separating the train network from the road network by removing all level crossings and placing the train network under-ground. Increasing the safety and efficiency of travel by these modes relative to private vehicle travel will increase active and public transport usage and mode share amongst active transport modes and will lead to a reduction in road congestion.

Whilst we support sections 4.2, 4.3 and Options 34 and 35 along with the existing Initiatives of 3.1.2, 3.1.3, 3.1.5, 3.2.2, 3.4.1 and 3.4.2, greater detail and clarity on the implementation and delivery of these needs to be provided in Plan Melbourne 2016. Furthermore, to support a polycentric city these initiatives need to be **rolled out across the entire city and not just in the central and middle areas** as is currently stated. This will require greater consideration of the location of economic development and employment in combination with the development of innovation and activity centers.

In relation to option 34: giving greater exposure to the Principal Public Transport Network (PPTN) in Plan Melbourne 2016, including reinforcing how the PPTN links with land use planning, is a welcome development. In the current public transport network, there remain major gaps in coverage, with only 49% of Melbournians within walking distance to the PPTN as of 2010, and only 20% of people in the outer suburban fringe (Ramsay 2010). In the search for affordable housing, poverty is being increasingly decentralized in Australian cities to middle and outer suburbs (Burke and Hulse 2015). Since access to public transport is reduced in middle and outer areas those who are most in need of public transport services may be those least likely to have access to the PPTN (Victoria Auditor-General 2013). Furthermore, there is the opportunity to specify a more ambitious vision for the long term role, shape and function of the PPTN: as the primary mode for regional travel, with metro style radial rail lines linked and supported by an integrated rapid bus system, both of which articulate with pedestrian and cycling networks, across the entire metropolitan region. Other more visionary land use

initiatives, such as the polycentric city, require the support of a bolder and more innovative vision for the public transport system. We recommend:

- Implementing a medium term plan for the PPTN such as the current plan for an improved network connecting planned activity centers.
- Articulating a more ambitious longer term vision for the PPTN as a fully integrated, multi-modal, multi-destination, rapid public transport system, facilitating efficient public transport travel across the entire city and ensuring that transit corridors and bus routes are also located in areas currently lacking integrated transport networks.

We also recommend that in setting long-term goals for Plan Melbourne, that **Travel Demand Management Systems (TDMS) be used to offer incentives and levers for multi-modal and active transport use** in ensuring the efficiency of transport networks in a growing city. TDMS include many different approaches to managing and encouraging Active Transport such as congestion pricing, road tolls, park and pay, concession pricing, the use of bike and pram racks on buses and trams, and community buses among many others.

***4. More clearly articulate the values of green wedge and peri-urban areas to be protected and safeguarded, and protect the urban growth boundary by re-zoning land uses adjacent to the boundary.***

We support Option 8 and Recommendation 54 that an agricultural overlay could be used to great effect in protecting green wedge, peri-urban and valuable agricultural land in non-urban areas of Melbourne. An agricultural overlay, national park overlay, or similar could also be applied to re-zone land adjacent to the urban growth boundary. This would provide an additional mechanism to locking the urban growth boundary. However, there is **potential conflict with Option 36A which establishes a 70/30 target for housing, where the 30 per cent housing target is to be located in greenfield growth areas.** Many current peri-urban areas and areas such as Werribee are designated greenfield development areas but are currently used as agricultural land. **Some clarity between these two Options in implementing changes to growth areas and green wedges is required.**

We recommend that **opportunities and strategies to protect green wedge and peri-urban areas be investigated to ensure the sustainability of market gardens and agricultural land in providing food for Melbourne.** The use of **agricultural overlays** is suggested as an option for consideration to maintain green wedges and agricultural land for food production. **Land-use planning** is another mechanism and **acquisition of urban land could facilitate Recommendation 39.** This moves beyond green wedges and agricultural land by working with communities in the delivery of local parks and open spaces, and towards encouraging community gardens and productive streetscapes. The inclusion of green wedges and agricultural land could be further emphasized with their inclusion in Figure 2 on page 22 of Plan Melbourne Refresh.

**5. *Maintain mechanisms to protect separation, buffer and interface distances for existing facilities and uses which create noise and air quality issues***

We suggest that Recommendation 55 be placed ‘in scope’ to recognize issues of encroachment between existing facilities and mixed land use zones that are incompatible with residential areas. Noise and odour issues from industrial zones have been shown to impact the health and wellbeing of nearby residents (Nicell 2009). Such areas are often associated with reduced land values and tend to be located close to vulnerable communities (Gunn and Davern 2013) which gives rise to **conditions of inequity in environmental quality impacting health and wellbeing**. The impacts of co-locating existing facilities and residential zones are investigated under Environmental Justice research, which shows that **low socio-economic-status people cluster in areas with affordable housing, and in turn these are located within industrial zones that can emit pollution**. Locking down the urban growth boundary means that all available land will need to be considered for mixed land uses including affordable housing and industrial zones. These include the development of private housing and new aged care service facilities in outer growth areas that may neighbour hazardous waste facilities. **New strategies and regulation need to be developed to mitigate hazardous environmental impacts on the health and wellbeing of residents in new and existing residential developments** to avoid situations like Brooklyn Green (Ombudsman Victoria 2009) and the Tullamarine Toxic Dump (EPAV 2015). Currently there is little research on the long term health impacts of landfills on near-by residents, but it has been shown that landfills continue to produce methane gases for decades after their closure (Taylor 2013). **We recommend investigating new methods of monitoring the impact of noise and odour pollution being used by the Environment Protection Authority Victoria**. The Authority currently relies on only 9 air quality monitoring stations across Melbourne and a self-reported pollution hotline line that has been shown as unconvincing for the most vulnerable members of the community. Having more objective monitoring stations yields more accurate data that can feed into the Indicator Framework proposed earlier under point (1). This information can then be made freely available through the Indicator Framework for planning to directly link to the realization of Option 62 and the reinstatement of Recommendation 55 allowing for the evaluation of air quality and noise conditions.

We recommend that the Government work with the Environment Protection Authority Victoria (EPAV) and other relevant partners in using incentives to control pollution that affects residential areas. Moving beyond this, we advocate working with research partners in **developing new waste and packaging systems to minimize the production of non-recyclable waste and to process recyclable waste into other products**. Planning laws and legislation are required to avoid co-location problems between residential areas and industrial zones.

**6. *Link and co-ordinate with other Victorian Planning Strategies, partner organizations and communities across government (e.g. Updated Victorian Cycling Strategy, Inclusive Communities)***

To capitalize on synergies and existing strategies and programs and to ensure that health is included strategically within the planning process we recommend that Plan Melbourne 2016 continues to identify and

**combine with other Government and community strategies** such as the Updated Victorian Cycling Strategy, Building Inclusive Communities, Victorian Public Health and Wellbeing Plan 2015-2019, Active Transport Victoria, Environment Protection Authority Victoria and the Heart Foundation's Healthy Active by Design among others. **Integrated and consistent planning strategies will deliver a cost-effective approach in delivering the objectives of Plan Melbourne 2016, particularly for the strategic principles interrelating planning and health.**

**We recommend that the Victorian Government works closely with local government and community groups in developing Precinct Structure Plans that make the best use of land to balance urban mixed land use needs with peri-urban and infill developments in Plan Melbourne 2016.**

Moreover, we recommend the **Government fund and draw upon research partners undertaking 'research-in-action' projects.** The McCaughey VicHealth Community Wellbeing Unit, is a partner in the Federal Clean Air Urban Landscapes (CAUL) project that is funded federally through the National Environmental Science Program and seeks to evaluate liveability, biodiversity and green spaces across Australia. Associated research has previously found an inequitable distribution of tree coverage across Metropolitan Melbourne (Cook, Hughes et al. 2015). **To create a sustainable city, we need to identify and prioritize areas that have a greater need for 'green infrastructure,' and collaborating with research partners is one avenue facilitating this.**

***7. Recognise and clearly identify changes to the Planning and Environment Act 1987 that would support the health and liveability directions of Plan Melbourne 2016.***

The Discussion Paper indicates that Plan Melbourne 2016 will include directions to support the creation of healthy and liveable 20-minute neighbourhoods. **However, planning for health and wellbeing is currently hampered by the Planning and Environment Act 1987, which does not include health as an objective of planning.** As a result, there is currently no mandate for health to be considered in planning decision-making. We applaud Initiative 4.3.2 in Plan Melbourne 2014, which aims to ensure that municipal public health and wellbeing plans inform municipal strategic statements. However, clearer direction could be provided in Plan Melbourne 2016 about how to achieve this. Thus, to support the health and liveability directions of Plan Melbourne 2016, **we recommend including clear statements about the need to amend planning legislation in Victoria.** Necessary changes to the Planning and Environment Act 1987 that could be identified include:

- Amending section 4(1) to add the planning objective 'to promote environments that protect and encourage public health and wellbeing'; and
- Amending section 12A(4) to state that 'A municipal strategic statement must be consistent with the current Municipal Public Health and Wellbeing Plan prepared under section 26 of the Public Health and Wellbeing Act 2008, and the current Council Plan for the municipal council approved under section 125 of the Local Government Act 1989.'

**Table 1: Summary of Place, Health, and Liveability Research Program recommendations**

<p><b>1. Use an Indicator Framework to evaluate and monitor progress on key areas.</b></p>
<ul style="list-style-type: none"> <li>• Use of an Indicator Framework, such as Community Indicators Victoria (CIV), to evaluate and monitor progress on key areas.</li> <li>• Allow greater access to government and administrative data that is already being collated for the use of planning, monitoring and evaluating progress of Plan Melbourne actions through the Indicator Framework.</li> </ul>
<p><b>2. Highlight how the key areas of Plan Melbourne can impact health and liveability.</b></p>
<ul style="list-style-type: none"> <li>• Use the liveability definition ‘...safe, attractive, socially cohesive and inclusive, and environmentally sustainable, with affordable and diverse housing linked via public transport, walking, and cycling to employment, education, public open space, local shops, health and community services, and leisure and cultural opportunities.’</li> <li>• Modify recommendation 28 to read ‘Healthy, liveable and inclusive neighbourhoods.’</li> <li>• Change the minimum number of dwellings to be 35 houses per hectare and include 35 jobs per hectare to facilitate the timely delivery of public transport and jobs under Recommendation 22, Initiative 2.2.5-4.</li> <li>• Include developer discounts for a fixed percentage of social housing included in new developments under Recommendation 25, Initiative 2.4.3-3.</li> <li>• Have 2-3 bedroom houses included in social housing to support new arrivals with families.</li> <li>• Have minimum apartment sizes to ensure the long term development of high density socially cohesive communities.</li> <li>• Cross-reference between chapters to highlight where synergies exist between strategies and actions within Plan Melbourne that affect liveability and health.</li> </ul>
<p><b>3. Incorporate Active Transport infrastructure such as, pedestrian ways, cycle lanes, bus lanes and tram ways into new Precinct Structure Plans and retrofit such infrastructure to existing areas by prioritizing Active Transport.</b></p>
<ul style="list-style-type: none"> <li>• Clarify how infrastructure supporting the pedestrian and cycle networks will be delivered and realized.</li> <li>• Use the Walkability for Transport and Access to the Principle Bike Network Indicators and other relevant indicators from an Indicator Framework such as CIV for planning purposes.</li> <li>• Use cycle lanes, bus lanes, and tramways to help in prioritizing Active Transport modes ahead of private motor vehicles.</li> <li>• Connected cycle paths to be within 5km of all train stations and activity centers in Melbourne.</li> <li>• Place Option 34 in-scope for Plan Melbourne 2016 to include the Principle Public Transport Network.</li> <li>• Articulate a more ambitious longer term vision for the PPTN as a fully integrated, multi-modal, multi-destination, rapid public transport system, facilitating efficient public transport travel across the city and ensuring that transit corridors and bus routes are located in areas currently lacking integrated transport networks.</li> <li>• Extend Active Transport and multi-modal transport options across the entire city and not just in central and middle urban areas (that may already have transport infrastructure).</li> <li>• Use Travel Demand Management Systems to offer incentives and levers for multi-modal and Active Transport use in ensuring the efficiency of transport networks in a growing city.</li> </ul>

<p><b>4. <i>Clearly articulate the values of green wedge and peri-urban areas to be protected and safeguarded, and protect the urban growth boundary by re-zoning land uses adjacent to the boundary.</i></b></p> <ul style="list-style-type: none"> <li>• Investigate that opportunities and strategies to protect green wedge, peri-urban areas, and the urban growth boundary.</li> <li>• Use agricultural (and other) overlays, land-use planning and acquisition of urban land to protect and control green wedges and the urban growth boundary.</li> </ul>
<p><b>5. <i>Maintain mechanisms to protect separation, buffer and interface distances for existing facilities and uses which create noise and air quality issues</i></b></p> <ul style="list-style-type: none"> <li>• Reinstate Recommendation 55: Initiative 5.4.1-2: Strengthen mechanisms (such as clearer standards and guidance) to protect separation, buffer and interface distances for existing facilities and uses that create noise and air quality issues.</li> <li>• Work with the EPAV and others in using legislation and incentives to control pollution releases that affect residential areas.</li> <li>• Work with research partners to develop new waste and packaging systems to minimize the production of waste going to landfill.</li> <li>• Include more air quality monitoring stations to facilitate Option 62: Rationalize and update indicators, including addressing gaps relating to environment and climate change.</li> </ul>
<p><b>6. <i>Link and co-ordinate with other Victorian Planning Strategies, partner organizations and communities across government (e.g. Cycling Strategy, Inclusive Communities)</i></b></p> <ul style="list-style-type: none"> <li>• Harness local knowledge of LGA and community groups in developing Precinct Structure Plans.</li> <li>• Draw upon research partners in undertaking ‘research-in-action’ projects.</li> <li>• Identify other partners beyond those mentioned on page 11 of Plan Melbourne Refresh and expand Option 55 to include LGA and community groups.</li> </ul>
<p><b>7. <i>Recognise and clearly identify changes to the Planning and Environment Act 1987 that would support the health and liveability directions of Plan Melbourne 2016.</i></b></p> <ul style="list-style-type: none"> <li>• Identify necessary reforms to the Planning and Environment Act 1987, which include adding public health and wellbeing as an objective of planning in Victoria; and mandating that municipal public health and wellbeing plans inform municipal strategic statements.</li> </ul>

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